Nuclear Division News

Vol. 12, No. 24

December 3, 1981





FRIENDS, THEN AND NOW — Jack L. Finchum, left, and Jim E. McClane bear no resemblance to the Finchum and McClane in the photograph on the right...but they are the same men. Finchum, in Y-12 Utilities; and McClane, who recently retired from Engineering at ORGDP, were friends during the Great Depression...and have remained friends ever since.

World's Fair passes again offered during December

Nuclear Division employees will once again be able to purchase reduced-rate season tickets to the 1982 World's Fair in Knoxville.

Considerable interest has been indicated in reopening the offer to purchase \$55 adult season tickets to the Fair. As a result, employees will now be able to purchase the tickets from the Cashier's Office at the facility at which they work. The offer, however, will expire on December 31

Tickets may be purchased during the normal operating hours of the Cashier's Office at each installation.

According to World's Fair officials, the normal cost of a season pass during 1982 will be \$100; however, under the arrangement we have with the Fair. employees can purchase a

season pass for \$55. This will entitle the purchaser to unlimited visits to the fairgrounds. (Children from age 4 through 11 will require passes costing \$35.)

Included in this issue of *Nuclear Division News* is an application for a World's Fair season certificate which can be exchanged for a season pass. The pass will include a photograph of the user. The Fair emphasizes that season passes are *not transterable*. But this doesn't mean the certificate has to be used by the purchaser. It can be given as a gift to a relative or friend who can redeem it for a season pass.

All checks accompanying applications for season pass certificates should be made out to *Union Carbide Corporation Nuclear Division*.

Food, fun, entertainment offered at World's Fair

The 1982 World's Fair is an official international exposition, fully licensed and sanctioned by the Bureau des Expositions Internationales in Paris. It is the first Fair to be held in the southeastern United States since the Cotton States International Exhibition in Atlanta in 1895.

WHO WILL BE REPRESENTED AT THE FAIR?: There are currently 19 nations participating in the exposition. These include the United States, Australia, Canada, Federal Republic of Germany, France, Hungarian People's Republic, Italy, Japan, Republic of Korea, Mexico, People's Republic of China, Saudi Arabia, the United Kingdom, and the European Community consisting of France, Italy, Great Britain, Federal Republic of Germany, Belgium, The Netherlands, Denmark, Ireland, Luxembourg and Greece.

WHAT IS THE COST?: Tickets are on sale at the three Nuclear Division Oak Ridge Cashier's Offices, with adult season passes selling for \$55 and children (from 4 to 11) for \$35. (Tickets are available only through December.)

WHAT ARE HOURS OF OPERATION?: The Fair will open seven days a week, from 10 a.m. until 10 p.m. The FunFair (amusement area) will stay open until 1 a.m. as will some of the dining facilities.

WHAT ABOUT THE FOOD?: The International Food Festival will offer four full service restaurants enabling you to sample foods from other parts of the world. In addition, the Festhaus, the Candy Factory and the L&N Railway Station will provide eating places. The Sunsphere, 266 feet above the Fair, will also feature a restaurant.

WHAT ABOUT ENTERTAIN-MENT?: Throughout the duration of the May through October event there will be music, dancing, street mimes, jugglers, puppets and storytellers from every country represented. The Tennessee Amphitheater, and the World Festival will present programs 12 hours per day every day of the Fair

WHAT ABOUT SHOPPING?: An International Bazaar will offer unusual gifts, clothing, fine arts and handicrafts in booths, pavilions and boutiques throughout the Fair. Collectible quality souvenirs will also be available.

WHAT ABOUT THE PHYSI-CALLY HANDICAPPED?: The Fair is designed to be completely accessible for the physically handicapped,

(Please turn to Page 8)

APPLICATION FOR WORLD'S FAIR SEASON PASS CERTIFICATE

(Full Name - Please Print)

(No. of Children Certificates Requested @ \$35 each) (No. of Adult Certificates Requested @ \$55 each)

Attached is my check for \$ ___

Checks must be made out to Union Carbide Corporation Nuclear Division

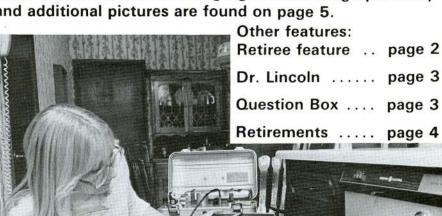
THE 1982

THE 1982 WORLD'S FAIR. MAY-OCTOBER 1982 KNOXVILLE TENNESSEE

REMEMBER: SEASON PASSES ARE NOT TRANSFERRABLE

In this issue...

As part of a special study of indoor home environments, ORNL's Stephanie A. Morris performs an organic analysis in the kitchen of a home using a gas chromatograph. Story and additional pictures are found on page 5.



Life after retirement?...you bet, say the Raaens

Ever think of starting a new career when you retire?

Well, neither did Vernon and Helen Raaen (he was a research chemist at ORNL; she was a technical publications manager). But that's exactly what they have done. They are thoroughly engrossed in occupations that have little to do with their former careers.

Vernon recently received an Individual Artist's Fellowship in the amount of \$5,000 awarded by the Tennessee Arts Commission through the National Endowments for the Arts to further his work on handcrafted edged tools. Most of the grant, he says, will be spent on materials and further studies.

Helen began her new career as a jewelry designer, but has since joined her husband in making the tools and cutting boards. Each can make an edged tool from start to finish, but in production there is some specialization.

Their home at 111 Scenic Drive, Oak Ridge, has literally become their shop, filled with exotic woods, metals and masterfully crafted tools and edging equipment. Their farm in Roane County furnishes a lot of the wood, but the more exquisite ebony, rosewood and bocote are ordered through an importer in Knoxville.

It all started years ago when Vernon began designing his own stocks for firearms. (He is still a devoted skeet shooter). "From that beginning, I branched out to make my own cutting tools, knives and other implements."

Both of the Raaens are members of the Southern Highland Handicraft Guild, the Foothills Craft Guild, the Artist-Blacksmith's Association of North America, Tennessee Artist-Craftsmen's Association and the Oak Ridge Community Art Center.

They have sold or shown crafts at the Folk Art Center, Asheville; Parkway Craft Center, Blowing Rock, N.C.; the Foothills Guild Craft Shop, Oak Ridge; the Tree House, Oak Ridge Community Art Center's shop; the Carol Hooberman Gallery, Birmingham, Mich,; the Iron Age Antiques, Ocean View, Del.; the Southeastern Center for Contemporary Art, Winston-Salem; and the Pickering Gallery, Nashville.

The Raaens recently displayed their handicrafts at the Ringling Museum of Art Craft Festival in Sarasota.

The Raaen's exhibit at the recent Foothills Craft show in Oak Ridge was judged to have the best craftsmanship there.

Vernon, a native of Montana, holds a BS from Concordia College, an MS in organic chemistry from the University of Minnesota, and a PhD from the University of Tennessee. Helen, born in Virginia, graduated from Duke University with a BS in chemistry and an MA in analytical chemistry, and did work toward her PhD at the University of Minnesota.

It was at Minnesota that they met and later married.

They both came to Oak Ridge early in their careers, and retired years

Making a knife or a vegetable cutter is not as simple as it may look. The material has to be designed, the metal has to be heat-treated and the right kind of wood must be fashioned for the handle.

All of this makes the implement a complete entity...a utilitarian tool to perform what it was orginally intended to do. "That's where our forefathers had it all over us," Vernon says. "Their instruments had to perform and were more often designed to be used and not to be admired."

A quick catalog of instruments they have made includes kitchen knives, a chef's knife, backpacker's knife, sausage or cheese knife, a Chinese chopper, a screwdriver, round chopper, head knife (for working leather), a T-handled chopper, freeform chopper, open wood-carving scorp, a closed wood-carving scorp, a Sloyd knife, harvesting knife, bird knife, sheath knife, a skinner (for big game), and many others.

They also do awls, briar hooks, cleavers, grafting chisels, logger's hooks, reed scrapers, skewers, caming knives, steak knives, trimming knives and a variety of wood-carving implements. In addition, they will do commissioned pieces as the customer wishes.

Their woods include black walnut, bocote (from Mexico), California walnut, cherry, dogwood, padouk, apple, spalted birch, American chestnut, spalted hornbeam and rosewood ... and, of course, the expensive kind such as ebony and Brazilian tulip wood

For metals they prefer steel from diamond-edged masonry saw blades and high-carbon steel found in disk-harrow blades. These metals must be heat-treated in four stages to give toughness.

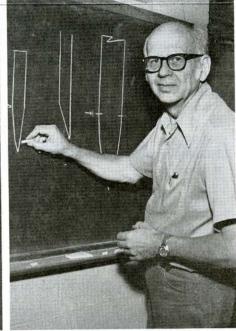
You can't just sit down and make a knife. It requires a combination of skills, hard work and infinite patience.

Tool-making is not their only interest. Both have amateur radio licenses (there are some technical spin-offs here, they explain), and gardening often provides ideas for tools. Other hobbies include shooting sports (very little hunting) and photography.

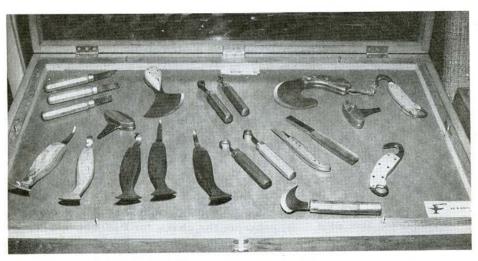
So, if you want to stay young after retirement, get yourself a new field to enter like the Raaens have done.



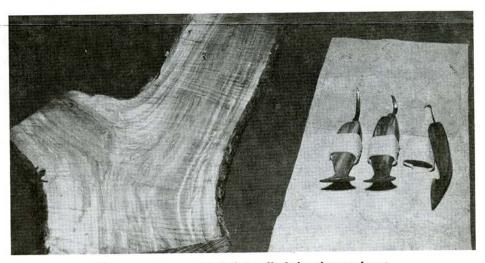
Drawn patterns



Designing edges



An array of utensils



From raw material to finished product



'Mostly a team effort'



Chain saw injuries

by T. A. Lincoln, M.D.

(Editor's Note: Dr. Lincoln alternates his regular column with "The Medicine Chest," where he answers questions from employees concerning health in general. Questions are handled in strict confidence, as they are handled in our Question Box. Just address your question to "Medicine Chest," NUCLEAR DIVISION NEWS, Building 9704-2, Stop 21, Y-12, or call the news editor in your plant, and give him or her your question on the telephone.)

About 1 out of every 5.5 households in the U. S. has either an electric- or a gasoline-powered chain saw. The number of commercial and home-use saws will probably near 18 million in 1982. Many people are buying and using chain saws for the first time to cut firewood for heating their homes and saving on energy costs. A tragic consequence this year, however, will be about 100,000

Almost 25 percent of the injuries are caused by "kickback." For those not familiar with a chain saw, a blade supports a continuous metal chain with attached sharpened teeth, which move in a direction away from the operator. About 85 percent of chain saws are powered by gasoline engines, and the chain is moved with great speed and power. The lower edge of the rotating chain is used as the cutting edge. The tip of the blade is directed downward, and sometimes it hits a hard object such as frozen ground, ice, a rock, a branch or a knot in the wood. When this happens, the machine kicks backward and upward, producing what is known as "nose tip" kickback.

Another cause of kickback is binding of the chain in the cut, resulting in what is called "pinch" kickback. In either case, the rotating chain on the blade is often thrust up into the face. In one study of 48 patients who were hospitalized in Lee County Hospital in Opelika, Ala., 19 had injuries to the face and neck. During kickback, the upward movement of the teeth in the chain caused a ripping effect, with destruction of an 8- to 10-mm width of tissue through the upper lip, nose, facial bones, sinuses, eyes and sometimes into the neck.

Other dangers

Surprisingly, in the study, patients seldom suffered damage to the globe of the eye, because of the bony forehead which protects it. Damage to the eyelid and face, however, was extremely severe in many cases, and required several operations involving plastic surgery for facial reconstruction.

A chain saw also may cause severe lacerations to the hands and feet, including complete and partial

Question Box

Why weren't salary increases equal?

QUESTION: The Company has demonstrated that it has no concern for seniority by giving the surplus funds in the salary budget to newcomers. Why wasn't the money divided equally among all nonexempt employees?

ANSWER: Salary increases were given to improve the pace of an employee's salary growth toward the job rate zone of 96%. Employees who did not receive the increase were at or above the job rate zone. The increases granted were not limited to newcomers versus more senior employees, but to employees low in their rate range irrespective of years of service and the job level. Your facility's Salary Administrator will be happy to discuss the program principles with you.

QUESTION: With the 10½ percent increase for unskilled laborers, I am making less as a Level 4 Secretary than they are. What incentive do we have? The majority of us are working

to support families and not making out too well. What is management going to do about us and when?

ANSWER: The salary increase program for CY 1981 for weekly salaried employees (including Level 4 Secretaries) is equitable with the recent increase for hourly employees. The secretarial staff is an invaluable group in the Nuclear Division, and we continually strive to ensure that pay levels reflect this importance. The salaries of many of our Level 4 Secretaries exceed rates of pay for laborers and some are less. Nuclear Division salaries for all secretaries compare very favorably with salaries paid by other employers in the area.

Next issue...

The next issue will be dated December 17. The deadline is December 9.

amputations and severed tendons. When a kickback occurs, the operator's natural impulse is to drop the saw to protect his/her face. This action accounts for many injuries to the left hand and foot.

All chain saws are designed for right-handed use. The left hand acts as a stabilizing force, while the right hand is the guiding force at the heel of the machine. Most facial injuries, therefore, occur to the left side of the face.

Saving time and energy

The chain saw is a great tool for saving time and energy. When it is used properly and with adequate protective equipment, serious injuries should be rare. The difficulty lies in getting people to realize how dangerous chain saws can be and how important it is to follow a few safe practices.

Most new gasoline-powered chain saws have a chain brake and hand-guard bar. During a kickback, the left hand lurches forward and depresses the chain brake, thus stopping the movement of the chain. Better saws have safety tips that cover the nose of the guide bar and reduce the chance of kickback by keeping the chain from contacting anything at the guide bar tip.

Safety precautions

Hard hats with a projecting facial shield are not easy to find in hard-

ware stores, but they are essential equipment. Hearing protection also should be used, because chain saws are extremely noisy. Sure-grip gloves, trim-fitting clothes and safety shoes also are important.

If you can't receive expert instruction on using a chain saw, at least read very carefully the instruction book that accompanies the saw. An excellent guide on chain saws is available from the U.S. Consumer Product Safety Commission, Washington, D.C. 20207.

Other factors

Simple fatigue is a safety factor that frequently is overlooked. For the inexperienced, using a chain saw is hard work. Everyone seems to be under pressure to get things done in a hurry on weekends. As a consequence, people tend to push themselves near the end of the day. They take chances because they are anxious to finish.

A spouse or other family member can help prevent injuries by insisting on good equipment, safe practices and the use of adequate safety devices. The worker should also take several rest breaks, with some coffee and nourishment each morning and afternoon. Professionals can work hard all day, but amateurs need rest periods to relax; they must realize that the pile of logs or "forest" of trees doesn't have to be cut in one day.

Safety Scoreboard

Time worked without a lost-time accident through November 24:

 Y-12 Plant
 7 Days

 ORGDP
 166 Days

 ORNL
 563 Days

 Paducah
 483 Days

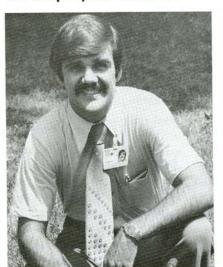
237,000 Employee-Hours 4,557,800 Employee-Hours 13,260,961 Employee-Hours 4,382,000 Employee-Hours



PADUCAH CONTRIBUTION — Employees at the Paducah Plant presented checks to the United Way representatives in a recent ceremony. Bill Sacharnoski, president of the Oil, Chemical and Atomic Workers Union Local 3-550, left, presents the check for Paducah-McCracken County to W. D. Sullivan; while Rick Graves, who headed the campaign for 1981 at the plant, and Plant Manager Clayton Zerby look on. This year's campaign netted more than \$80,000.

UNION

Published every other week for employees such as:



Steven R. Humphreys of ORGDP's Operations Division.

Nuclear Division News

UNION CARBIDE CORPORATION NUCLEAR DIVISION Post Office Box Y Oak Ridge, Tenn. 37830

EDITOR (Y-12) James A. Young, 574-1643

ASSOCIATE EDITOR (ORNL) Cindy Ross Lundy, 574-4163

ORGDP Ruby A. Miller, 574-8092

PADUCAH
Darlene M. Mazzone, Bell 208



News About People

Robert J. Gray receives Sorby Award

Robert J. Gray, ORNL Metals and Ceramics Division, is the recipient of the 1981 International Metallographic Society (IMS) Sorby Award.

The Sorby Award is presented annually to the individual who makes an outstanding contribution to experimental and laboratory metallography.

Gray is a senior staff engineer with the special projects staff of ORNL's Metals and Ceramics Division. He has been a member of the Carbide staff since 1948.



Gray

Blackmon, Hoy win NSC's Cameron Award



Blackmon



Hoy

Two staff members at ORNL have been named recipients of the National Safety Council's Cameron Award for 1980.

James T. Blackmon and Harry C. Hoy, both members of the research and development section executive committee, National Safety Council Industrial Conference, received the award, which is the highest honor that the Council can bestow on an industrial section for its committee activities in the promotion of safety.

Blackmon, a member of the Industrial Safety and Applied Health Physics Division's department of environmental management, joined Union Carbide in 1951.

Hoy, who joined the Union Carbide staff in 1947, is a member of the Nuclear Safety Information Center in the ORNL Engineering Technology Division.

Affirmative Action committee observes tenth anniversary

The Nuclear Division's affirmative action organization observes its tenth anniversary this month. In December 1971, Nuclear Division President Roger F. Hibbs announced the formation of an affirmative action committee.

Charles A. Blake, now corporate manager for Equal Opportunity Affairs, served as first Nuclear Division Equal Opportunity Coordinator. Each installation also had a coordinator.

The 1971 committee

Division managers or directors at each of the four Nuclear Division installations appointed affirmative action (AA) representatives to assist in coordinating, planning, monitoring and reporting progress in affirmative action. Other responsibilities of the AA representatives included communicating the intent and progress of the Affirmative Action program to employees in their divisions and making certain that a human relations component was incorporated in all informal training programs in which these employees were involved.

Many division managers or directors chose to serve as their own divisions' first AA reps to ensure that the program got off to a good start.

Changes since 1971

While the responsibility for achieving a successful affirmation action program still rests with the division managers or directors, they all have now appointed representatives in their divisions to assist them in developing, implementing, monitoring and reporting on the division's program. Other responsibilities of the affirmative action representative include listening to, and helping to resolve, complaints of discrimination from division employees; following up on minorities, women, handicapped and veteran applicants being considered or interviewed for jobs in the division; and ensuring that minority, women, handicapped and protected veteran employees are included in educational, training and other developmental programs.

Additional changes

Since the original committee was formed in 1971, three additional protected classes have been included under the affirmative action umbrella: the handicapped, as a result of the Rehabilitation Act of

Patents

Richard A. Todd, ORNL, for "Compensated Count-Rate Circuit for Radiation Survey Meter."

Paul R. Barnes and Hanna B. Shapira, both of ORNL, for "Reflective Insulating Blinds for Windows and the Like."

1973; and Vietnam era and disabled veterans, as a result of the Vietnam Era Veterans Readjustment Act of 1974. Today's affirmative action plans are required to cover these classes.

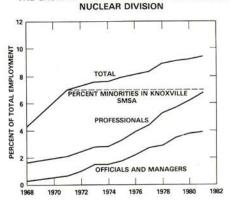
Also, the position of Affirmative Action Coordinator is now a full-time one at each Oak Ridge facility and a half-time one at Paducah.

First-decade accomplishments

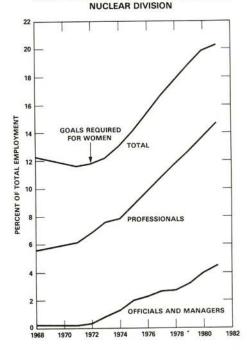
During the first decade of the Affirmative Action Committee's existence, the percentages of minorities and women on the payroll, as well as the percentages of those in responsible positions, have increased considerably (see graphs). For example, the percentage of women professionals has risen from 6.2 percent in 1971 to 14.7 percent in 1981; and the percentage of minority professionals has gone from less than 1 percent to 6.8 percent — only 0.2 percent below the minority population in the Knoxville Standard Metropolitan Statistical Area (SMSA), and above that of the 40-mile radius surrounding Oak

In other areas, the number of deaf employees has risen from 1 to 14, and all Division installations have employed persons confined to wheelchairs and persons with a variety of other handicaps who are, nonetheless, qualified to perform a broad spectrum of jobs.

THE GROWTH RATE FOR MINORITY EMPLOYEES



THE GROWTH RATE FOR WOMEN EMPLOYEES



Volunteers needed for indoor environment study

Interested in finding out about indoor air pollution levels in your home? Researchers in the ORNL Health and Safety Research Division (HASRD), with support from the Consumer Product Safety Commission, are conducting a study of the indoor environment and are looking for volunteer families in the area to participate int he research.

As you button up your home to save energy, you also reduce ventilation rates and increase exposures to any indoor air pollutants that may be present.

The quality of that air and its potential health effects increasingly have been recognized as potential concerns.

The quality of that air and its potential health effects increasingly have been recognized as potential concerns, since building and insulating materials, as well as activities such as heating, cooking and smoking, can be the source of a complex mixture of pollutants.

"Surprisingly little is known about pollutants in the home environment, although outdoor air pollutants and their effects on health have been studied extensively," says HASRD Director Stephen V. Kaye. "We are interested in examining sources of air pollution in homes and what changes might be made in the home environment to limit the levels of potentially hazardous pollutants.

"Surprisingly little is known about pollutants in the home environment."

"In carrying out this study, we are seeking families in the area who would be willing to allow us to leave



HOME SAMPLES — These passive samplers contain 5 milliliters of water and are used to check formal-dehyde levels. Between 3 and 6 of the samplers will be left in each room of the home.

passive samplers in their homes overnight once every two weeks for approximately 36 weeks," says Kaye.

These small (about five centimeters in diameter) passive samplers are round plastic cups which contain either water or adsorbent pellets. There will also be three one-day periods when extensive tests will be conducted with instruments to measure a variety of indoor air pollutants and to measure air exchange throughout the residence. These tests may take up to eight hours each day but do not require the direct involvement of families in the home.

"Great care will be taken to assure a minimum of inconvenience to the residents."

The researchers are interested in obtaining a representative sampling of new and older homes, of different designs, and with different types of heating systems.

Forty homes will be selected for the study from among those who volunteer. The researchers are interested in obtaining a representative sampling of new and older homes, of different designs, and with different types of heating systems (gas, electric and including some where wood is used as a primary fuel). They also are seeking residences with different types of insulation (both original and retrofit installations), including ureaformaldehyde foam.

Those participating in the study will receive information about pollutant levels in their homes and an analysis relating those levels to other homes in the study. Because there are no standards for indoor air quality, the researchers will not be able to give the participant precise information about whether or not particular levels constitute a potential health hazard. However, the researchers will be able to tell the homeowner where his or her home stands in relation to other homes in the study, and the information about air exchange should assist the homeowner in estimating the energy efficiency of the residence.

The information the homeowner receives about air exchange should assist him or her in estimating the energy efficiency of the residence.

Those who may want to participate in the study should contact Rita Allen (6-7607) or Richard Gammage (6-2685) at ORNL. Volunteers will be sent a survey form, although filling out the form will not commit the homeowner to participate. Those selected then will be contacted further.



PREPARING TO TEST — The team of researchers, from left, Richard B. Gammage, Stephanie A. Morris, Donald R. Womack and Rita R. Allen, prepare to enter a home to begin a study of its indoor environment.



PARTICULATE ANALYSIS — Donald R. Womack watches as Richard B. Gammage and Rita R. Allen prepare to analyze particulate matter in the living room of the home.



PART OF TEST PROGRAM — Donald R. Womack uses a particulate analyzer, which sorts out particles by size.



Larry Bohanan and friend

Bohanan's magic show added to dog act for Christmas parties, set December 19

Added to the Dalmatian dog act for the Christmas parties for Carbide children is Y-12er Larry Bohanan. He will present an entirely new act of magic to entertain the children and parents Saturday, December 19.

The parties set at the Oak Ridge

High School, will be presented at 9 and 11 a.m., and 1 and 3 p.m. Deadline for the application is December 11. The entry for tickets is repeated below. (Note: Parents accompanying their children require tickets also.)

Application for Tickets O

to

Oak Ridge Christmas Parties



SATURDAY, DECEMBER 19

Employee's Name		the second second
Home Address		
City	Zip	
Plant Address		
Number of Tickets (Children) _		
Number of Tickets (Adults)		
—CHECK	TIME PREFERRED—	
Satur	day, December 19	
	Only	
9 A.M11 A.M	1 P.M 3 P.	M

Please mark first and second choice (write in space "1" or "2") as only a limited number of tickets will be issued for each party. Preference will be given to early applicants and if tickets for first choice are exhausted, tickets for second choice will be issued.

Return this form, properly and completely filled out, to the Carbide Recreation Office, Building 9711-5, Mail Stop 1, Y-12 Plant. Please apply for tickets before December 11.

Bowling alley notes...

UCC Mixed...

The No Names moved up to tie the Squeakers for the lead in the Carbide Mixed Bowling League, with the Pin Strikes only one point away from the top rung. The Squeakers have an even 2500 series marks on the board for top bowling of the season, as the league rested last week for the Thanksgiving holidays.

Y-12 C League...

The Badgers still control action in the Y-12 alley action, well ahead of the Sunflowers and Big Orange teams. Bill Johnson topped bowlers recently, rolling a 213, 243 single. Clyde Craven posted a 655 handicap series to top pre-holiday activities.

Carbide Wednesday...

The Alley Rads knocked the Amps from first place in the Carbide Wednesday league, Lou Finley's 282 single handicap game was high; Charlie Cagle's 715 series topped the list. The week before, the Knuckleheads rolled a 3132 handicap series, which should stand on the boards a while.

Y-12 Classic...

The Ridgers extended their lead in the Y-12 Classic bowling competition by two points before the holidays. Their 3217 stands as season high still in handicap series count. In single game highs, it is Buford Rea, 288; Bill Mee, 283; and Bill Patrick, 273...all handicap scoring.

K-25 Tuesday...

The Fearless Five still hold a safe lead in the K-25 Tuesday bowling action. Week's highs recently went to M. McBee, rolling a 588 scratch, 672 handicap series. R. K. Johnson posted a 232 scratch single to take honors there.

Monday Mixed...

The Omegas gained control of the UCC Monday Mixed League, battling the Go-Getters for the top berth. The Blonde Bombers' Tom Elliott still holds a 595 scratch series high.

ORNL A League...

Elwood's Chargers took charge of the A League, recently rolling a 3261 series. Bill Montgomery posted a 721 handicap series; Dave Stacy rolled a 304 single.

Savings Plan-Personal Investment Account

	Fixed		Equity	
	Income Fund	UCC Stock	Investment Fund	
THE RESERVE	TO THE PARTY	NEWSCHOOL STATE	THE RESERVE TO STREET	
December 76	13.0553	59.2723	8.8166	
December 77	14.2017	40.9096	8.0427	
July 81	19.4914	57.6093	12.8188	
August 81	19.6510	54.9160	12.2008	
September 81	19.8058	48.3865	11.8043	
October 81	19.9596	47.9908	12.2710	

Note: Fixed Income Fund unit values reflect interest additions to achieve the guaranteed effective annual interest rate of 9.75% for 1981. Union Carbide stock values are the average cost of stock purchased during the month. Equity Investment Fund unit values represent the month-end market value of securities held by the Fund. The price of each unit is determined by dividing the total value of the securities by the number of units in the Fund.



FAMILY TABLE TENNIS — All Nuclear Division employees, plus members of the family, are invited to participate in the Table Tennis League each Tuesday from 6:30 to 10:30 p.m. at the Jaycee's Clubhouse, Oak Ridge. Additional information may be obtained from Bill Capshaw, extension 6-2597.

Carbide Camera Club announce winners in 1981 Salon; photographs on display



'Cotton Grass' by Peggy Turner

The annual photographic salon of the Carbide Camera Club opened November 22 at the Oak Ridge Art Center. The show continues through December 29, at regular Art Center hours...9 a.m.-1 p.m., weekdays; 1 p.m.-4 p.m., Saturdays; and 2-4 p.m., Sundays. The Camera Club has provided additional showings on weeknights from 7-9 p.m. through December 11.

Cochairmen of the Salon are John Barrett and Les Shular. Judges of the competition were John Edwards, Gordon Hodge and Conrad Reinhardt in the color slide division; and Michael Coster, David Fahey and Terry Marlar in both the color and black and white print divisions.

Receiving awards for photographic excellence in the competition are Art Snell with an average score of 12.1 for 11 entries in the print competition; and Mike Calloway with an average score of 11.3 in the slide competition.

Calloway's untitled still life was judged best slide in the show. Other winning photographers in the slide division were Jule Buchanan, John Johnson, Virginia Coleman and Ralph Donnelly with slides taking first places; John Barrett with a second place; and Bob Stone and Adria Herrmann with third places. Ralph Guymon took two honorable mentions.

In the black and white division, John Blankenship captured first place in three of the four categories. Terry Domm won first, second and third places in the portrait category. Both Domm and Blankenship received second and third places in other categories. Blankenship's "Trees and Stubble" took Best of Show honors in black and white competition.

Salon winners in the color print division are Snell, with first place in three categories, and second places in two. His "Flat and Fancy" took

Recent Retirements

Best of Show, color prints. Daryl Northcutt won second place in the pictorial category and third in open competition. Virginia Coleman won third place in three categories. Peggy Turner's "Cotton Grass" took first place in animate nature.

Participation in the Camera Club is open to any Nuclear Division employee. Interested parties may attend the meetings, held on the second Tuesday of each month. Additional information may be obtained from John Barrett, extension 4-5793.



"Quality assurance: at home and work - a way of life." (Submitted by Jane G. Walker, Y-12 Plant.)

UNION

(Many of these employees will be retiring December 31.)



Bascom S. Turner Research Services 28 years service



Leonard M. Brown Research Services 28 years service



Walter W. Rice Plant Laboratory 35 years service



Keith Eastridge Research Services 30 years service



Clarence R. Bolt Maintenance 30 years service



Rolf K. Randey Electrical and Electronics Y-12 11 years service



Ted C. Brooks Process Maintenance Y-12 37 years service



Willie S. Minge Alpha 5 West Shop 38 years service



Lawrence O. Heath Jr. Alpha 5 Processing 30 years service



Clarence L. Riggs Special Services 36 years service



Ernest V. Larmoyeux Chemical Services 31 years service



Lou E. Goley **Building Services** 36 years service



William T. McBryde Plant Laboratory 35 years service



Chelton T. Bunch H-1 Foundry 30 years service



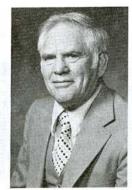
Clara C. Hall **Building Services** 30 years service



Production Scheduling 28 years service



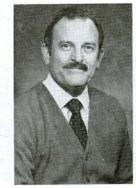
William Warmley Jr. **Building Services** Y-12 30 years service



Lethan L. Hamlin **Process Maintenance** Y-12 35 years service



Halbert E. Argo Research Services 35 years service



John G. Smith Jr. A Wing Machine Shop Y-12 37 years service



Albert R. Merrell **Process Maintenance** 30 years service

Recent Y-12 promotions announced

Vaughn E. Chase and Larry W. Melhorn are new machining supervisors in Y-12.

Chase, a native of Anderson County, attended the University of Colorado, the University of Maryland, and holds associate degrees in computer science and accounting and business. He joined Union Carbide in 1971. He served in the U.S. Army and worked with the Anderson County Ambulance Service, Sears and Compton Sales prior to that time.

He and his wife, the former Cheryl Meachum live at 118 Bermuda Road, Oak Ridge, with their three children.

Melhorn, a native of Wartburg, joined Union Carbide in 1968. He is a graduate of the Training and Technology project. Prior to coming to Y-



4-12 203 480

Chase

Melhorn

12, he worked with Caterpillar Tractor and Tennglad Industries. He served in the U.S. Army from 1969 until 1971.

Mrs. Melhorn is the former Brenda Sexton, and they live at Route 1, Wartburg. They have two sons.

1982 World's Fair

(Continued from page 1)

barrier free and with no more than a five percent grade throughout the entire site. Special parking facilities will also be available for the physically handicapped.

WHAT ABOUT EXHIBITS?: Union Carbide Corporation, along with the American Gas Association, America's Electric Energy Exhibit Inc., North American Philips Corporation, Tenneco Inc., Occidental Petroleum Corporation, Knox County Baptist Ministries, Church of Christ, Association of Christian Denominations, Federal Express, U.S. Steel (OILWELL Division), Ford Motor, the Tennessee Valley Authority, Control Data Corporation, Stokely Van Camps Inc., Dairymen Inc., Anheuser

Busch Corporation, Communications Satellite Corporation, Sun Company and the Shrine of North America will feature exhibits. There will also be a City of Knoxville, Alabama, North Carolina and Kentucky pavilion.

WHO ARE SOME OF THE ENTERTAINERS?: Among some of the entertainment names already booked are Bill Cosby, Bob Hope, Red Skelton, Up With People, the Knoxville Symphony, Atlanta Symphony-Chorus, Grand Kabuki Theater of Japan, Tennessee Ernie Ford, the Houston Ballet, Victor Borge, Stephanie Mills, Carlos Montoya, Peter Nero with the Knox Pops. Others are expected to be announced later.

Save Energy / Share The Ride

Y-12

RIDE from Oak Ridge Highway, Karns area, to North or Central Portal, 7:30-4:00 shift. E. G. Laggis, plant phone 4-1966; home phone Powell 947-6408.

RIDE WANTED or JOIN CAR POOL from Holiday Shores, Sugar Grove Valley, to Central (or other) Portal, 8-4:30. Ruth Drewery, plant phone 4-2126; home phone Harriman 882-8753.

RIDERS from Beaver Creek Drive, Karns, to East or Biology Portal, 8-4:30 shift. Plant phone 4-0532; home phone Powell 947-8729.

RIDE or WILL JOIN CAR POOL from Gallaher Road (near I-40) to North or Central Portal, 7:30-4 shift. Bill Farmer, plant phone 4-3749; home phone Kingston 376-9916.

VAN POOL from Karns, near Grace Baptist Church and Karns traffic light, to any portal, straight day. Ray Pollard, home phone Powell 947-6951.

ORNL

RIDE NEEDED from Oak Ridge Highway between Karns and Solway to East Portal, 8:15-4:45. Peterson, plant phone 4-4483; home phone 690-3989.

BUS FORMING from Burlington, East Knoxville area (route to be determined by passenger response), to any portal, straight day. P. R. Long, plant phone 4-4154; home phone Knoxville 637-3231.

ORGDP

CARPOOL MEMBER wanted from Cedar Bluff Shopping Center, 7:45-4:15 shift, Portals 2 or 3. Kathy, plant phone 4-8601.

JOIN CARPOUL from Norris, 7:45-4:15 or 8-4:30 shift, Portals 1, 2, 3 or 4. Virl, plant phone 4-8227; home phone 494-9573.

TWO CARPOOL MEMBERS wanted from Cedar Bluff Shopping Center, 7:45-4:15 shift, Portal 2. Fred Markham, plant phone 6-2504.

Anniversaries

ORNL

35 YEARS

Thomas H. Burnett, Industrial Safety and Applied Health Physics; Clair J. Collins, Chemistry; and Louis A. Eckert, Engineering (June 3).

30 YEARS

Hershel G. Davis, Analytical Chemistry; James E. Strain, Analytical Chemistry; Phillip S. Baker, Information; Bryan M. Lamb, Laboratory Protection; and James F. Talley, Chemical Technology.

25 YEARS

Kenneth K. Klindt, Moble H. Roose, Louie M. Pyatt and Charles L. Ottinger.

20 YEARS Charles E. Murphy.

Y-12

30 YEARS

Troy W. Baker, Electrical and Electronics; James M. Turley, Beta 4 Forming; Rudolph Payne, H 2 and F Area; and Ruby A. Viator, Plant Laboratory.

25 YEARS James R. Moyer and Alan V. Davis. 20 YEARS Joel W. Garber.

ORGDP

30 YEARS

Chester E. Brown, Engineering; Bill S. Denton, Engineering; Fay B. Duncan, Operations Analysis and Planning; Elmer C. Hurst, Separation Systems; Wayne M. Kyte, Maintenance, George L. Lowe, Maintenance; Newell L. Lane, Computer Sciences; Cedric S. Patton, Engineering; and Claude B. Smith, Maintenance.

25 YEARS

Paul D. Baker, Finance, Materials and Services; Elizabeth A. Huntsman, Technical Services; and Robert E. Seyfried, Employee Relations.

20 YEARS

Ezra Brady, Albert R. Mann, Delbert L. Van Dusen and Clarence W. Weaver.

Patent

Forrest B. Waldrop and Edward Jones, both of Y-12, for "Method for Providing Uranium with a Protective Copper Coating."

ORNL physicist, Ben Harmatz, dies

Ben Harmatz, a research staff member in the ORNL Physics Division, died November 19 at Fort Sanders Regional Medical Center, Knoxville.

Mr. Harmatz, a physicist, had been employed at ORNL since 1950, after transferring from Y-12, where he had worked since 1944.

He was a member of Temple Beth El in Knoxville.

Survivors include his wife, Ruth C. of 722 West Vanderbilt Drive, Oak Ridge; a son, Paul; a daughter, Miriam; two brothers, Harry and Milton; and a sister, Ruth.



Mr. Harmatz

Graveside services were conducted November 23 at the New Jewish Cemetery in Knoxville.

UNION CARBIDE

UNION CARBIDE CORPORATION

NUCLEAR DIVISION P.O. BOX Y, OAK RIDGE, TENNESSEE 37830 BULK RATE U.S. Postage P A I D Permit #70 Union Carbide Corporation



ADDRESS CORRECTION REQUESTED